



*Office of Nuclear Energy, Science and Technology*

United States Department of Energy

# Office of Nuclear Energy, Science and Technology Workforce Plan

September 2004

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## EXECUTIVE SUMMARY

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The Department of Energy (DOE) Office of Nuclear Energy, Science and Technology (NE) leads the government's efforts to develop new nuclear energy generation technologies to meet energy and climate goals, advance proliferation-resistant nuclear fuel technologies that maximize energy from nuclear fuel, and maintain and enhance the national nuclear technology infrastructure.

Beginning in fiscal year 2001, NE has annually assessed the human capital needs, identifying strengths and challenges of the organization. Its strengths include the recent assignment as Lead Program Secretarial Officer of the Idaho site adding the skills and competencies of the Idaho Operations Office to those at Headquarters; a highly technical, highly educated workforce with strong skills and abilities; an innovative matrix management approach that takes full advantage of the available skills within the organization to meet the mission; a succession plan that identifies leadership positions and skills available in the organization to fill those positions as appropriate; and a strong commitment to reducing the underrepresentation of women and minorities in the workforce. Its challenges include maintaining leadership and mission critical skills in the face of nearly one-third of the organization being eligible for retirement, reducing the underrepresentation of women and minorities in leadership positions and mission-critical occupations, filling skills gaps in technical specialists and program and project management, and achieving an integrated Headquarters-field organization structure that enhances decision making.

NE's future human capital posture will encompass all its current strengths and have answered its current challenges. A younger, more junior but still highly technical and highly educated workforce will be in place, engaged in appropriate development programs to ready them for leadership positions throughout the organization. Knowledge management systems will be used daily with efficiency captured and stored information and knowledge that is available for streamlined decision making at all levels. NE will be known as a preferred employer and will have access to a skilled, experienced, well-educated, and diverse candidate pool. The NE organizational structure will have provided a functionally integrated staff without the organizational and administrative separation associated with the traditional Headquarters-field relationship.

NE's Workforce Plan was established to serve as a guide to get us where we want to be human capital wise. The Workforce Plan articulates metrics that help us focus on: recruiting, redeploying, and using our matrix management approach to reduce skills gaps in mission-critical occupations; certifying personnel in mission-critical skills, like project management, contracts, and IT skills; developing a leadership pool as a basis for succession planning; hiring entry- and mid-level personnel in professional, scientific, and administrative positions to assure organizational continuity; developing leaders; reducing underrepresentation of women and minorities in our organization; and ensuring that the organization and staffing are optimized. Through recruiting, enhanced development programs, a focus on decision making and organization structure, and a strong commitment to reducing the underrepresentation of women and minorities in leadership positions and mission-critical occupations, NE will strive to get to its future human capital posture.

## **Report Summary**

The Office of Nuclear Energy, Science and Technology (NE) Workforce Plan charts a course for ensuring that the organization's future workforce has the skills and competencies to achieve its highly technical and scientific mission. The analyses, strategies, and performance measures described in the Workforce Plan form the foundation for attaining this goal.

Following publication of the *National Energy Policy*, the Department of Energy (DOE) developed a strategic plan that defined its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. One of DOE's strategic goals is to protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy.<sup>1</sup> This goal supports DOE's overarching mission to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex. To implement this strategic goal, DOE is developing technologies that foster a diverse supply of reliable, affordable, and environmentally sound energy to guard against energy emergencies and exploring advanced technologies that will fundamentally improve the Nation's energy options and energy efficiency.

NE's mission is to lead the DOE investment in advanced nuclear science and technology to expand the use of nuclear power as a reliable, affordable, and environmentally sound energy source in support of DOE's strategic goal. Much of the research needed to sustain the nuclear energy solution for the Nation is far beyond the province of private industry, thus the role of Government in establishing a long-term future for nuclear power is critical. NE leads the Government's efforts to develop new nuclear energy generation technologies to meet energy and climate goals, to advance proliferation-resistant nuclear fuel technologies that maximize energy from nuclear fuel, and to maintain and enhance the national nuclear energy infrastructure. NE is responsible for managing the safe operation and maintenance of critical nuclear facilities and ensuring that nuclear technology goods and services are provided to meet the Nation's energy, environmental, health care, and national security needs.

In May 2003, NE assumed the role of Lead Program Secretarial Officer for the Idaho Site from the Office of Environmental Management (EM). At that time, 20 Headquarters and 225 Idaho Operations Office positions were transferred from EM to NE. This Workforce Plan reports performance and goals for the merged Headquarters and Idaho organization for fiscal years (FY) 2003–2008.<sup>2</sup>

**Business Vision.** NE's business vision is to achieve results to support its mission through partnership with the private sector, academia, and other nations. Within the next two to four years, NE will further its vision by implementing technology research, development, and demonstration activities that support a cost-competitive nuclear energy infrastructure, minimized waste generation, proliferation-resistant nuclear fuel, and implementation of advanced space applications. During this time, NE will select a management and operations contractor for the Idaho National Laboratory with the experience and skills necessary to partner with NE to provide

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<sup>1</sup> Department of Energy Strategic Plan, "Protecting National, Energy, and Economic Security with Advanced Science and Technology and Ensuring Environmental Cleanup," DOE/ME-0030, September 30, 2003.

<sup>2</sup> Prior to FY 2003, the Workforce Plan reports Headquarters data only.

leadership and a long-range plan for establishing the laboratory as the premier nuclear technology research and development center of the Nation. This business vision drives NE's need to ensure certified program and project managers and highly specialized engineering and scientific skills are in place in the organization as needed to oversee technology research, development, and demonstration projects.

**Human Capital Management Strategy.** NE's human capital management strategy is to recruit, retain, and deploy highly skilled professionals with the appropriate skills to carry out NE's highly technical mission and achieve its business mission. NE will ensure that skills needs are met by: (1) maintaining an up-to-date Workforce Plan so that recruitment, retention, development, succession planning, and knowledge management programs focus on attaining, replacing, and retaining critical skills and (2) ensuring that recruitment and retention activities are invested in underrepresented groups (*i.e.*, women, minorities, and persons with disabilities) to make available to the NE organization the deepest possible pool of skills.

**Workforce Analysis.** The NE workforce is a highly educated and highly skilled; approximately 75 percent of the workforce has at least an undergraduate degree, 33 percent hold Master's degrees, and 5 percent have doctorates. Fifty-nine percent of the workforce holds degrees in a science or engineering field. Sixty percent of the workforce provides safety and management oversight of nuclear facilities and programs or are engaged in nuclear research and development programs. Approximately 43 percent of NE's employees are in positions requiring specific skills, education, and training in the sciences, engineering, and project management disciplines. Ten percent of the organization's employees are in supervisory/managerial positions, and three-quarters of these managers have both technical and managerial skills. Fifty-four percent of the Headquarters workforce and 41 percent of the Idaho workforce are members of underrepresented groups. Overall, women and minorities comprise 45 percent of NE's workforce.

In the next five years, over one-third of the organization will be eligible to retire, and it is projected that one-fifth will retire. In general, the NE organization is skewed to the higher grade levels (General Schedule [GS]-13, -14, -15, and above), with a majority of employees at the GS-13 level. The challenge to NE is to maintain skills in the organization as its staff retires in such large proportions. The key vulnerability in the current organization is the large number of mid-level and senior professional, scientific, and administrative positions with relatively few junior personnel from which the more senior positions can be filled.

**Skills Analysis.** Many of the skills needed to accomplish NE's mission over the five-year planning horizon are currently resident in the NE organization. A gap exists in highly specialized skills needed to support nuclear technology research, development, and demonstration including metallurgical, chemical, and materials engineering and scientific skills. Another need identified is the certification of NE's program and project managers as well as information technology project managers.

**Reducing Skills Gaps.** NE's goal is to reduce gaps in highly specialized skills and to achieve 100 percent certification of its program and project managers.

NE uses several management tools for reducing identified skills gaps in specialized technical occupations including recruitment for new hires, redeployment of existing skills sets, and matrix management. NE recruits needed skills into the organization to fill identified gaps and replace skills lost due to retirement and other attrition. In FY 2001, NE established a recruitment goal

for following years because of the scarcity of technically skilled and qualified candidates available and willing to consider a career with the Government. NE redeploys skills from within the organization from lower-priority programs to higher-priority programs when priorities shift or recruitment proves difficult. NE uses matrix management to detail employees to high-priority, high-visibility mission-critical but short-term assignments. Table ES-1 summarizes NE's plans and results in reducing skills gaps in mission-critical occupations.

**Table ES-1. Reducing Skills Gaps in Mission-Critical Occupations  
(FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Recruitment	(number of personnel)							
Planned	6-8	6-8	6-8	6-8	8-10	8-10	10-12	10-12
Actual	6	8	7	3				
Redeployment	10	3	6	21				
Matrix Management	9	11	18	10				

<sup>a</sup> Headquarters data only.

In FY 2003, NE acknowledged the importance of certifying its program and project management staff and engaged in the process of ensuring full certification of all identified staff within five years of the Office of Engineering and Construction Management (OECM) initiating certification through the Project Management Career Development Program Certification Review Board. In addition, NE is pursuing certification of its contract specialists and IT professionals. Milestones for certifying NE personnel are summarized in Table ES-2.

**Table ES-2. Skills Certification Milestones (FY 2001–2008)**

Milestone	Planned Completion	Status
OECM initiates candidate certification approvals.	FY 2005	Level 1 certification program available.
All NE project directors certified.	FY 2007	NE has two incumbent project directors and one project to which a project director will be assigned in FY 2005. The project directors will be certified within two years of the start of training.
Certification of program and project managers initiated.	FY 2008	One engineer has achieved Level 1 Project Management certification. NE has requested from OECM two Level 1 training sessions to be held in FY 2005 for NE project managers at Headquarters. Most NE project managers have target certification Level 1 and one each have target certification Levels of 2, 3 and 4.
Certification of contract specialists to Level 3.	FY 2005	NE has 14 contract specialists; 3 require Level 2 and have completed it; 11 require Level 3 and 10 have completed it; the remaining contract specialist should complete Level 3 in FY 2005.
Certification of IT professionals to Level 3.	FY 2005	NE has one IT professional on staff who will complete Level 2 IT certification in FY 2005. Level 2 is all that is required now.



**Succession Planning.** NE's succession plan integrates the following three important elements that are critical to developing and maintaining a leadership talent pool:

- Recruit and redeploy qualified personnel from inside and outside NE to fill leadership positions identified in NE's succession plan.
- Provide a larger pool of candidates available for development within NE by hiring a significant proportion of junior personnel (entry and mid-level) to shift the average age and grade level of its professional, scientific, and administrative staff over time. A younger and less senior workforce over the next five years provides NE a better opportunity to supply the leadership talent pool.
- Continue participation in DOE Leadership Programs and other development and training programs and formalizing the connection between those skills identified as essential to leadership positions and Individual Development Plans with a skills-based development program.

Tables ES-3 through ES-5 illustrate NE's plans and accomplishments with succession planning.

**Table ES-3. Succession Planning Milestones and Accomplishments (FY 2001-2008)**

<b>FY</b>	<b>Milestone</b>	<b>Accomplishment</b>
2001 <sup>a</sup>	Commitment to succession planning.	Established a deadline of FY 2002 to complete succession plan.
2002 <sup>a</sup>	Complete succession plan.	Published Human Capital and Succession Plan (August 2002).
2003 <sup>a</sup>	Implement the FY 2002 succession plan.	Filled six leadership positions: <ul style="list-style-type: none"> <li>• Five recruitments—two from industry, two from National Nuclear Security Administration, and one from the Department of Defense.</li> <li>• One redeployment from within NE.</li> </ul>
2004	Implement the FY 2002 succession plan.	Filled five leadership positions: <ul style="list-style-type: none"> <li>• Three recruitments—one from industry and two from within NE.</li> <li>• Two promotions from within NE</li> </ul>
	Revise FY 2002 succession plan to incorporate Idaho and include a skills-based plan to develop and maintain leadership talent pool.	Milestones established (see Section 6.2.3).
2005	Implement skills-based development plan.	
	Establish performance goal for the number of leadership skills-based training courses to be completed annually.	
2006	Evaluate effectiveness of succession plan.	

<sup>a</sup> Headquarters data only.

**Table ES-4. Demographics of New Hires in Professional, Scientific, and Administrative Areas (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003 <sup>b</sup>	2004	2005	2006	2007	2008
Percent (%) of new hires that are entry- or mid-level personnel								
Planned	30	30	30	50	50	50	50	50
Actual	64	42	31	50				
Personnel hired								
Total	11	12	13	14				
Entry-Level	4	4	3	3				
Mid-Level	3	1	1	4				

<sup>a</sup> Headquarters data only.

<sup>b</sup> Does not include transfer of positions in support of LPSO activities for Idaho.

**Table ES-5. Individual Development – Goals and Accomplishments (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Personnel in formal leadership programs <sup>b</sup>								
Planned	0	2	2	6	6	6	6	6
Actual	0	1	3	8				
Personnel in other career development programs								
Planned	2	4	12	12	12	12	12	12
Actual	2	5	18	18				
Personnel in NE's cooperative program <sup>c</sup>								
Planned	0	0	1	2	3	3	3	3
Actual	0	0	3	4				

<sup>a</sup> Headquarters data only.

<sup>b</sup> NE senior management selects employees to participate in formal leadership programs.

<sup>c</sup> Due to the highly specialized training associated with nuclear applications, NE independently recruits entry-level engineers and scientists and, therefore, has not participated in the DOE intern program. To that end, NE developed a co-op program in late FY 2002 with a number of colleges and universities that offer nuclear engineering degrees. The program provides opportunities for promising students to work in the nuclear field during their junior and senior years and during graduate studies.

## Reducing Underrepresentation.

In 2002, NE showed underrepresentation in its female, black, and Hispanic populations compared to its benchmark, the Federal Civilian Workforce Statistics<sup>3</sup> for 2002. NE has shown an increase in both female and minority representation against the total population benchmark since FY 2002. Similarly, NE showed an underrepresentation of women in the senior executive population against its benchmark<sup>4</sup>. In FY 2004, NE SES female population is nearly 80 percent of the benchmark. NE's benchmarks are shown in Tables ES-6a and –6b.

<sup>3</sup> Federal Civilian Workforce Statistics, *Demographic Profile Of The Federal Workforce As Of September 2002*, United States Office of Personnel Management.

<sup>4</sup> Federal Civilian Workforce Statistics, *The Fact Book 2003 Edition*, United States Office of Personnel Management.

**Table ES–6a. NE’s Diversity Benchmark (Total Population)**

	Benchmark	2002*	2003	2004
Percent (%) of Total NE Population				
Women	49.1	35.8	37.3	36.9
Minorities	30.2	13.5	14.3	15.3
Black	16.7	4.2	4.9	4.9
Hispanic	6.8	2.9	3.0	3.6
Asian/Pacific Islander	4.7	4.4	4.5	4.9
American Indian/ Alaska Native	2.1	2.0	1.9	1.9

**Table ES–6b. NE’s Diversity Benchmark (SES Population)**

	Benchmark	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004
Percent (%) of SES Population					
Women	25.5	11	13	25	20
Minorities	14.0	22	13	13	13

<sup>a</sup> Headquarters data only.

NE is committed to reducing the underrepresentation of women and minorities in the workforce. It is NE’s policy to make every effort to attract and recruit a well-qualified candidate pool. Tables ES–7 and ES–8 demonstrate that commitment.

**Table ES–7. Hiring/Transfers from Underrepresented Groups (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of hires/transfers in underrepresented groups <sup>b</sup>								
Planned	50	50	50	60	60	60	70	70
Actual	64	69	59	93				
Minorities	45	38	30	14				
Women	64	54	40	79				

<sup>a</sup> Headquarters data only.

<sup>b</sup> Underrepresented groups include all women, Blacks, Hispanics, Asians, and Native Americans.

**Table ES–8. Mission-Critical Occupations and Leadership Positions – Women and Minorities (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of mission-critical occupations and leadership positions filled by women and minorities								
Planned	15	15	20	25	30	35	40	50
Actual	33	31	27	27				
Percent (%) of total personnel in formal leadership development programs that are women and minorities								
Planned	0	25	25	30	30	40	40	40
Actual	0	100	67	25				
Minorities	0	100	67	13				
Women	0	100	0	13				
Percent (%) of total personnel in other career development programs that are women and minorities								
Planned	30	30	40	40	40	40	50	50
Actual	100	33	72	72				
Minorities	100	17	33	28				
Women	100	33	72	72				

<sup>a</sup> Headquarters data only.

**Knowledge Management.** NE’s current knowledge management program is ensuring that institutional knowledge is readily available and retrievable by the workforce. General information on NE’s mission, goals, program plans, roadmaps, studies, reports, and press releases, as well as other valuable information, is kept current and available on the NE Website. The Director ensures that key information is relayed during quarterly all-hands meetings. Operating plans and procedures to guide routine and non-routine decisions and activities are maintained; and reports are generated, circulated, and maintained in files for future reference.

Recently, NE initiated a project to create a portal accessible to all NE offices and employees. By having a single site for nuclear energy program information, the portal will eliminate redundancies, streamline the information sharing process, and coordinate program management within NE. The pilot portal project is currently under development and should be completed by March 2005.

In support of its corporate goals, DOE has established the Knowledge Management Working Group (KMWG) to develop a knowledge management strategic plan, design and implement knowledge management training, and establish “communities of practice” to leverage new approaches to managing knowledge within DOE. NE fully supports this goal and has representation on the KMWG. Table ES–9 provides planned dates for completing and deploying the NE portal.

**Table ES–9. NE Portal Project Milestones**

Milestone	Planned Date	Actual Date
Complete portal pilot project.	March 2005	
Incorporate lessons learned in full-scale portal planning.	September 2005	

**Restructuring Improvements.** NE's vision is to integrate the Headquarters and Idaho organization to manage field operations without the organizational and administrative separation associated with the traditional Headquarters-field relationship. NE's goal is to streamline the reporting relationship between the Idaho laboratory contractor and the Director and is currently conducting a restructuring analysis of the organization. NE intends to achieve a high level of performance in key attributes as shown in Table ES-10.

**DOE Mission Linked to Performance Plans.** To clearly communicate to the NE workforce the means for the successful achievement of DOE's mission, NE links all Senior Executive Service and manager performance appraisals to the DOE mission. The individual performance measures are then cascaded through 100 percent of the workforce. NE's performance measures for linking appraisals to the mission are presented in Table ES-11.

**Table ES-10. Performance Measures on Restructuring Improvements (FY 2001-2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Number of Management Layers								
Planned	2	2	3	3	3	3	3	3
Actual	2	2	3	3				
Average Span of Control (Employee/Manager)								
Planned	7	10	10	10	10	10	10	10
Actual	7.5	9	10	9				
Number of Managerial Positions <sup>b</sup>								
Planned	13	12	47	47	37	37	37	37
Actual	13	12	47	47				
Savings Realized from Restructuring (\$ million) <sup>c</sup>								
Planned	0	0	0	0	2.6	2.6	0	0
Actual	0	0	0	0				

<sup>a</sup> Headquarters data only.

<sup>b</sup> The number of managerial positions in FY 2003 is higher than FY 2002 due the addition of Idaho.

<sup>c</sup> Savings in salary and benefits costs from buyouts

**Table ES-11. Linking Appraisals to DOE Mission**

End of FY	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of Senior Executive Service (SES) and manager appraisals linked to DOE mission							
Planned	NA	100	100	100	100	100	100
Actual	100	100	100				
Percent (%) of remaining workforce appraisals linked to DOE mission							
Planned	NA	NA	60	100	100	100	100
Actual	13	60	100				

<sup>a</sup> Headquarters data only.

**Links to NE Program Plan and NE FY 2006 Budget.** NE has developed links between the Workforce Plan, its FY 2006 Budget Request, and its Program Plan.

## **Conclusion**

To achieve its human capital management strategy, NE will continue to recruit, retain, and develop a well-qualified workforce. NE has made a strong commitment to reduce underrepresentation and shift to a younger, less senior demographic to ensure the strongest possible leadership talent pool. NE's vision is to build, sustain, and effectively deploy the skilled, knowledgeable, and high-performing workforce needed to meet current and emerging goals.

## 1.0 INTRODUCTION

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The Office of Nuclear Energy, Science and Technology (NE) Workforce Plan charts a course for ensuring that the organization's future workforce has the skills and competencies to achieve its highly technical and scientific mission. The analyses, strategies, and performance measures described in the *Workforce Plan* form the foundation for attaining this goal.

In May 2003, NE assumed the role of Lead Program Secretarial Officer (LPSO) for the Idaho site from the Office of Environmental Management (EM), and 20 Headquarters and 225 Idaho Operations Office positions were transferred from EM to NE. This Workforce Plan addresses the merged Headquarters and Idaho organization. NE has taken this opportunity to evaluate the merged organization's skills and experience and assess its potential to reinvent the traditional Headquarters-field relationship in managing field operations.

### 1.1 Business Vision

NE's mission is to lead the U.S. Department of Energy (DOE) investment in advanced nuclear science and technology. NE leads the Government's efforts to develop new nuclear energy generation technologies to meet energy and climate goals and to further advance proliferation-resistant nuclear fuel technologies that maximize energy from nuclear fuel and to maintain and enhance the national nuclear infrastructure. NE is responsible for managing the safe operation and maintenance of our critical nuclear infrastructure to ensure that the country's need for nuclear technology goods and services is provided.

NE supports several program goals to ensure the protection of national and economic security. The program goals help advance development of new nuclear generation technologies and advanced energy products that provide significant improvements in economics, safety, and proliferation and terrorism resistance. The goals also develop advanced, proliferation-resistant nuclear fuel technologies that maximize energy output, minimize wastes, and operate in a safe and environmentally sound manner. In addition, NE goals encourage the enhancement of the national nuclear infrastructure to support DOE's programs and to meet the Nation's energy, environmental, health care, and national security needs.

NE's business vision is to achieve results through a partnership with the private sector, academia, and other nations. Within the next two to four years, NE will further its vision by implementing technology research, development, and demonstration activities that support a cost-competitive nuclear energy infrastructure with minimized waste generation and proliferation-resistant nuclear fuel and implementation of advanced space applications. In addition, NE will select a management and operations contractor with the experience and skills necessary to partner with NE to provide leadership and a long-range plan for establishing the laboratories as the premier nuclear technology research and development center of the Nation. This business vision drives NE's need to ensure certified program and project managers and highly specialized engineering and scientific skills are in place in the organization to oversee technology research, development, and demonstration projects.

## 1.2 Human Capital Management Strategy

Following publication of the *National Energy Policy*, DOE developed a strategic plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. One of DOE's strategic goals is to protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy.<sup>1</sup> This goal supports DOE's overarching mission to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex. To implement this strategic goal, DOE is developing technologies that foster a diverse supply of reliable, affordable, and environmentally sound energy, guarding against energy emergencies, exploring advanced technologies that fundamentally improve our mix of energy options, and improving energy efficiency.

NE's mission is to lead the DOE investment in advanced nuclear science and technology to expand the use of nuclear power as a reliable, affordable, and environmentally sound energy source in support of DOE's strategic goal. Much of the research needed to sustain the nuclear energy solution for the Nation is far beyond the province of private industry; thus, the role of Government in establishing a long-term future for nuclear power is critical. The programs within NE fully support the *National Energy Policy* recommendations to expand the use of nuclear energy in the United States and thus improve the Nation's energy security.

NE's human capital management strategy is to recruit, retain, and deploy diverse, highly skilled professionals with the appropriate skills to carry out NE's highly technical mission to develop nuclear energy technologies. NE will ensure that skills needs are met by: (1) maintaining an up-to-date Workforce Plan so that recruitment, retention, development, succession planning, and knowledge management programs focus on attaining, replacing, and retaining critical skills and (2) ensuring that recruitment and retention activities are invested in underrepresented groups (*i.e.*, women, minorities, and persons with disabilities) to make available to the NE organization the deepest possible pool of skills.

## 1.3 The President's Management Agenda

The President's Management Agenda (PMA), announced in summer 2001, is an aggressive strategy for improving the management of the Federal Government. It focuses on five areas of management weakness across the Government where improvements and progress can be made. One area is the strategic management of human capital, for which the President established four priorities:

- Make the Government citizen centered.
- Shape organizations to meet a standard of excellence in attaining outcomes important to the Nation.
- Adopt information technology systems to capture knowledge and skills.

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<sup>1</sup> Department of Energy Strategic Plan, "Protecting National, Energy, and Economic Security with Advanced Science and Technology and Ensuring Environmental Cleanup," DOE/ME-0030, September 30, 2003.



- Induce agencies to make better use of the flexibilities currently in place to acquire and develop talent and leadership.

Government progress toward achieving the PMA is measured with the Executive Branch Management Scorecard. The scorecard tracks how well the departments and agencies are executing the Government-wide management initiatives using a simple “traffic light” grading system common today in well run businesses: “green” for success, “yellow” for mixed results, and “red” for unsatisfactory. Scores are based on five standards for success<sup>2</sup> defined by the President’s Management Council and discussed with experts throughout Government and academe including individual fellows from the National Academy of Public Administration.

In the latest PMA Human Capital Management Scorecard, DOE scored a “yellow” achievement status, signifying partial satisfaction of the scorecard standards, and scored a “green” progress status, signifying on-track implementation of agreed-upon plans. NE’s most recent internal DOE score is “yellow” having met performance goals for internal quarterly scorecard measures. There are a number of activities that need to take place to help NE move forward with the President’s agenda. The implementation of this Workforce Plan will be used to guide NE through these activities and progress to “green.” Implementation of the plan and achievement milestones are discussed further in Sections 6.0 through 10.0, including the following points presented at the January 2004 DOE Management Council:

Ensuring that at least 15 percent of NE’s new hires in professional, scientific, and administrative areas are at the entry level.

- Restructuring the Idaho Operations Office to better support the new site missions.
- Linking NE’s performance and evaluation process in appraisal plans to DOE’s mission.
- Measurable reduction of senior executive service underrepresentation of women and minorities.
- Implementing actions to fill identified skills gaps in the NE organization.
- Measurable reduction in underrepresentation of NE Hispanic employment.

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<sup>2</sup> See <http://www.results.gov/agenda/scorecard.html> for further information.

## **2.0    *WORKFORCE PLAN ORGANIZATION***

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This Workforce Plan covers the five-year period from second-quarter fiscal year (FY) 2004 through FY 2008 and is organized as follows:

### Executive Summary

Section 1.0	Introduction
Section 2.0	Workforce Plan Organization
Section 3.0	Workforce Analysis Process
Section 4.0	Workforce Statistical Analyses
Section 5.0	Skills Analysis
Section 6.0	Workforce Plan
Section 7.0	Knowledge Management
Section 8.0	Restructuring Improvements
Section 9.0	DOE Mission Linked to Performance Plans
Section 10.0	Links to NE Program Plan and NE FY 2006 Budget
Section 11.0	Maintaining the Workforce Plan
Section 12.0	Conclusion

## 3.0 WORKFORCE ANALYSIS PROCESS

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The Office of Nuclear Energy, Science and Technology workforce analysis process involved three steps:

**Document the nature of the existing workforce.** Using NE's Human Capital Database, workforce data were analyzed to provide organizational information that forms the baseline for the five-year plan status.

**Provide an organizational skill assessment and gap analysis.** This assessment addressed the skills that are essential to accomplish the NE mission and determined how the five-year business vision impacts the nature of the essential skills needed. The gap between existing and needed skills was then established.

**Develop a five-year plan for closing the skills gap.** The Workforce Plan was developed considering anticipated attrition due to retirements and other reasons, skills mix needs (*i.e.*, the proportion of needed skills in the workforce), age and grade level demographics, diversity, and available training and development programs. The plan includes goals for achieving levels of knowledge management and succession planning as well as goals for periodic status, reviews, and revision of the plan with identified roles and responsibilities.

### 3.1 Participants

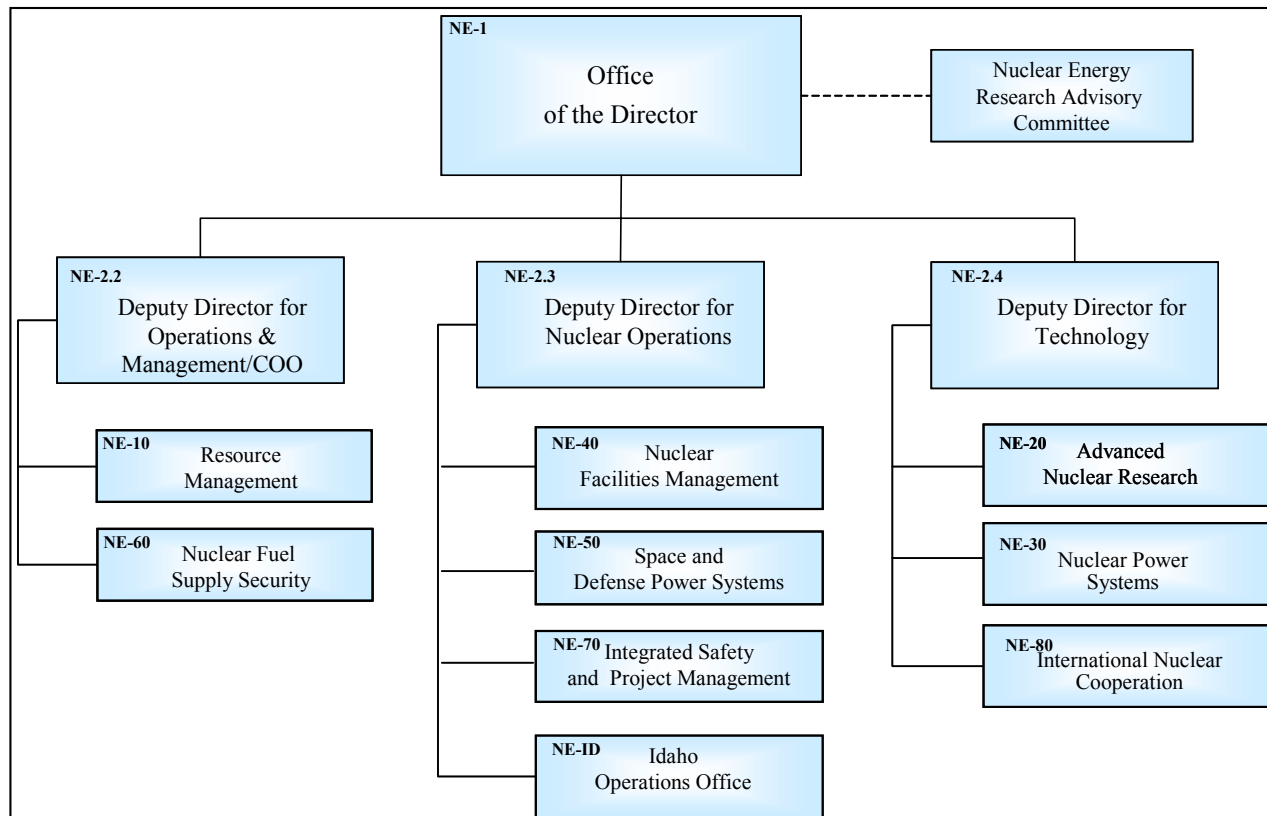
The Office of Resource Management (NE-10) managed the workforce planning effort. The Human Capital Review Team (HCRT), comprising the Deputy Directors, Associate Directors, Managers, and Assistant Managers, participated in the planning process through interviews. The HCRT also has responsibility for the periodic status, review, and revision of the Workforce Plan.

### 3.2 Data Management

The analysis of the current workforce was accomplished using NE's Human Capital Database. The database incorporates data downloaded from DOE's Corporate Human Resource Information System and from information provided in interviews with the HCRT.

## 4.0 WORKFORCE STATISTICAL ANALYSIS

The NE organization is made up of the Director's Office, three Deputy Director Offices, eight Associate Director Offices, and the Idaho Operations Office, as shown in Figure 4-1.



**Figure 4-1. NE Organizational Structure**

### 4.1 Overview

At the end of fiscal year 2003, NE had a total of 359 permanent employees, all under regular civilian employment, including SES, Excepted Service (ES), Scientific and Technical (ST), and General Schedule (GS) employees. The NE workforce is located in Idaho and at Headquarters with approximately two-thirds of the workforce in Idaho.

For the purposes of this statistical analysis, the NE organization is divided into position types and functional areas as shown in Table 4-1.

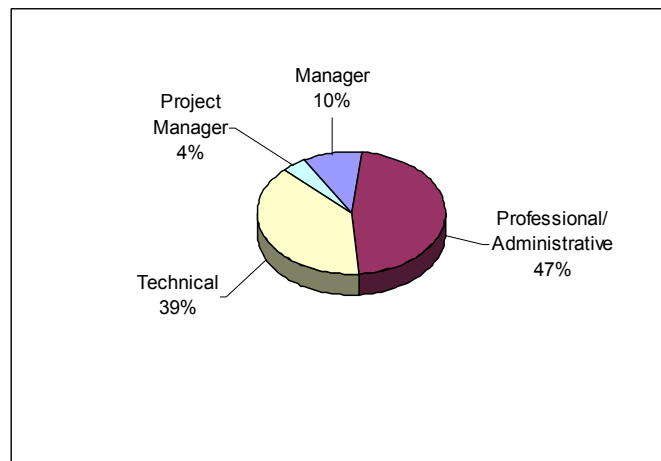
**Table 4-1. NE Organization Position Types and Functional Areas**

Position Types	Functional Areas
<ul style="list-style-type: none"><li>➤ Manager</li><li>➤ Professional/Administrative</li><li>➤ Technical</li><li>➤ Project Manager</li></ul>	<ul style="list-style-type: none"><li>➤ Management</li><li>➤ Support Services</li><li>➤ Facilities Management and Operations</li><li>➤ Research and Development</li></ul>

NE also funds 17 field positions that manage NE facilities at sites other than Idaho. These positions are not specifically addressed in this Workforce Plan because the selection, training, and personnel administration are handled by the site organizations where they manage NE facilities. These numbers will change during the five-year planning horizon. In the near term, the six positions associated with Argonne National Laboratory-West will be transferred to the NE organization. Two positions at Oakland will transfer to Idaho, because the Oakland scope of work is being transferred to Idaho. Eight field positions are devoted to the operation of the High Flux Isotope Reactor and other NE-managed facilities; uranium storage and disposition; and U.S. Enrichment Corporation monitoring at Oak Ridge; and one position devoted to the oversight of the medical isotope program at Brookhaven. In addition, seven additional field positions at Oak Ridge are being transferred to NE from the Office of Science to support expanding NE missions.

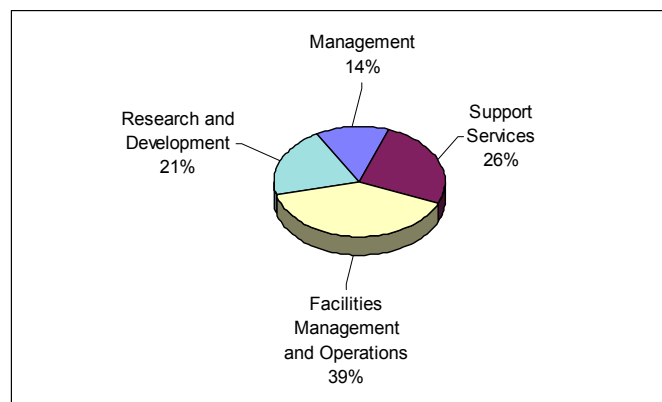
## 4.2 Demographics

NE has a highly educated, highly skilled workforce. Approximately 43 percent of the employees are in positions that require specific skills and education in the sciences, engineering, or project management as shown in Figure 4-2. Ten percent of the workforce is in supervisory/managerial positions, three-quarters of which require both managerial and technical skills. The remainder of the workforce is in professional and administrative positions.



**Figure 4-2. NE Position Type Distribution**

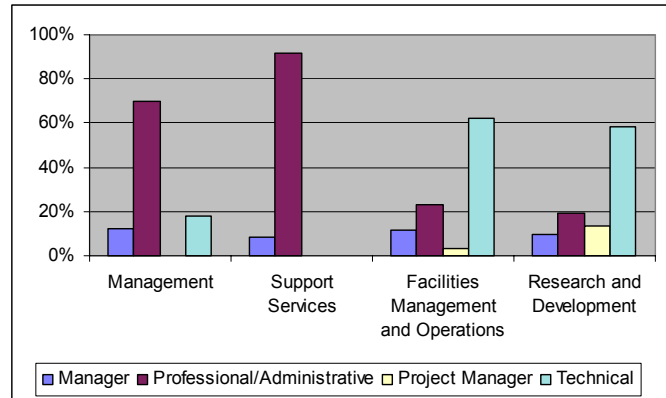
As indicated in Figure 4-3, 14 percent of the workforce is in management assigned to those parts of the organization charged with management and policy. Twenty-six percent of the workforce provides budget, financial, procurement, and contracting services; human resources support; and other support services. Thirty-nine percent of the workforce is assigned to organizations that provide safety and management oversight of facilities and programs at Idaho National Engineering



**Figure 4-3. NE Functional Area Distribution**

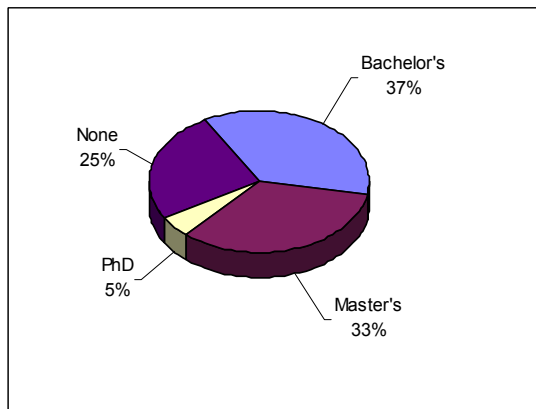
and Environmental Laboratory and other DOE sites, and 21 percent of the workforce is engaged in research and development. NE is evaluating ways to leverage the joint staff in these organizations to reinvent the Headquarters-field relationship in managing field operations.

The four position types are distributed across the four functional areas as indicated in Figure 4-4. The distribution is not uniform. As might be expected, no project management position types occur in the management or support services functional areas. Further, technical position types are more prevalent in the facilities management and operations and the research and development functional areas.

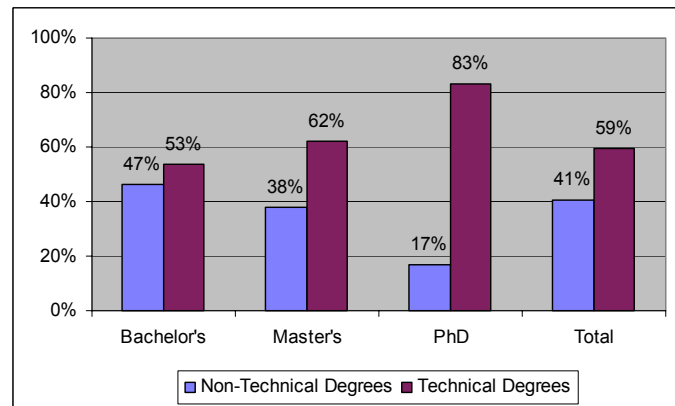


**Figure 4-4. Position-Type Distribution Across Functional Areas**

Seventy-five percent of the employees hold degrees. Thirty-eight percent hold advance degrees as indicated in Figure 4-5. Nearly 60 percent of the degrees held are in a science or engineering field as indicated in Figure 4-6.



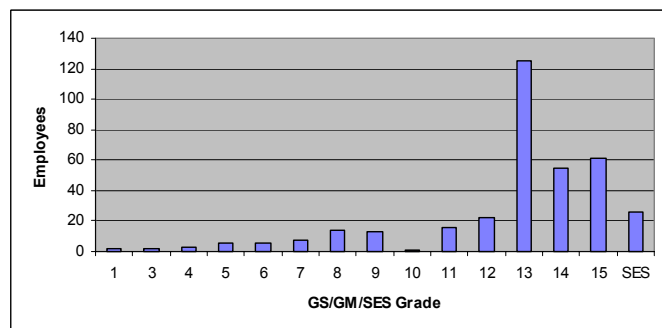
**Figure 4-5. NE Employees with Degrees**



**Figure 4-6. Distribution of Degree Types**

### 4.3 Grade Levels

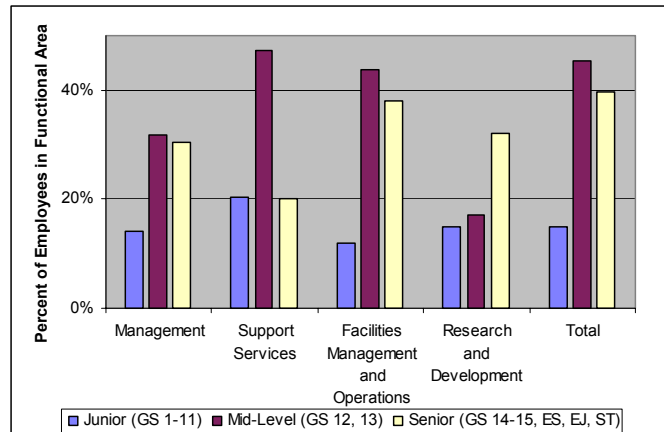
The average grade level in NE is 12.4, compared to a Government-wide average of 9.7. NE's grade distribution is skewed toward the higher grades as shown in Figure 4-7. NE's higher average grade level reflects several factors. One factor is that NE's highly technical mission requires highly educated professionals that are placed in GS-13 and above grade levels. Another is the long period during which NE had little ongoing entry-level recruiting in an effort to reduce the size of the organization. A third is the smaller than expected number of retirements, which would have opened more spaces for recruitment of entry- and mid-level employees. NE will continue its efforts to bring more junior employees into the organization over the next five years to have staff ready to move up through the organization to meet mission needs.



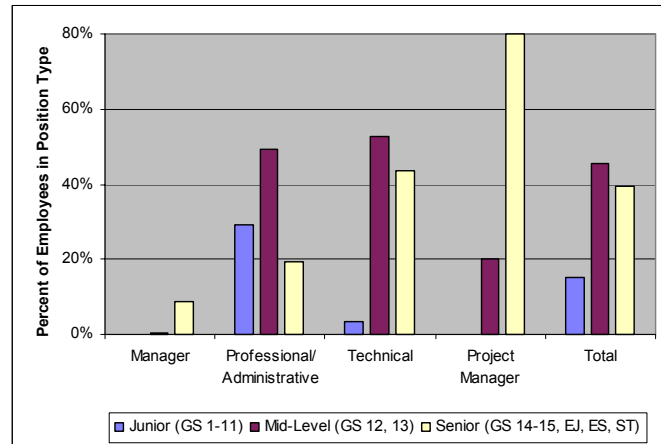
**Figure 4-7. Grade-Level Distribution**

As shown in Figure 4–8, the grade level distribution is different for each of the functional areas, with support services weighted toward the mid-level grades, facilities management and operations fairly equally staffed with mid-level and senior personnel, and research and development more heavily skewed to the senior grades.

The grade-level distribution across the position types is striking as shown in Figure 4–9. The professional/administrative position, although not balanced, shows that junior personnel have been recruited into the organization and that mid-level personnel are a strong resource. The manager and project manager positions are heavily skewed toward the higher grades, which is reasonable given that these roles require more experienced personnel; however, if the mid-level component were stronger, there would be a pool to draw upon as the senior personnel retire. The technical position is skewed toward mid-level and senior grades, with a small percentage of junior personnel poised to develop to mid-level and senior managers. Currently, there are not enough younger employees in the technical positions; however, efforts are continuing to bring entry-level personnel into the organization.



**Figure 4–8. Grade-Level Distribution Across Functional Areas**



**Figure 4–9. Grade-Level Distribution Across Position Type**

## 4.4 Turnover

Turnover in all forms—mainly retirement, resignation, and transfer—has an impact on the skills needed in the NE workforce. Although attention is focused on the impact of anticipated retirements as increasing numbers of employees become eligible to retire, retirement is only one facet of the larger turnover picture and is not the largest contributor to turnover.

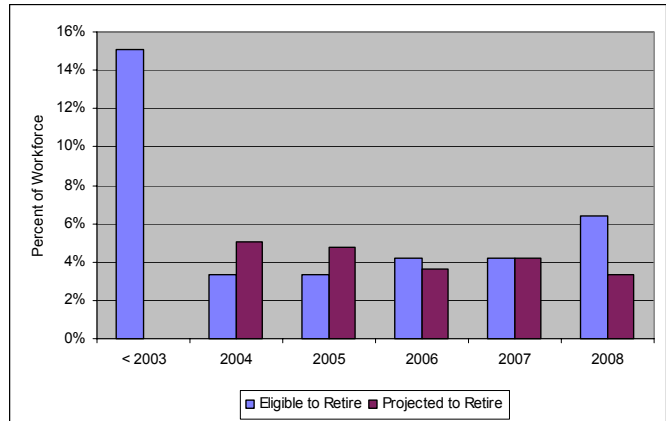
NE's turnover rate is quite low. In FY 2003, NE experienced 14 permanent losses from a workforce of over 350, representing about 4 percent overall. Of the permanent losses, two were due to resignations, four to retirements, three to transfers, and four to buyouts. The low turnover rate reflects several factors. First, for highly educated scientists and engineers, the work that is pursued at NE is considered desirable, and the mission meaningful because it has a significant focus on research and development and is programmatically diverse. Second, NE leaders foster high levels of motivation and commitment in several ways: relying on technical managers rather than contractors to manage the programs; employing NE's matrix management approach, described in Section 2.0; and pursuing a technically challenging mission that cannot be

accomplished by private industry. Third, the Idaho workforce is relatively stable due to the lack of other Federal employers in the immediate area, limited recruitment by the contractor due to downsizing, and a tendency to hire from regional colleges.

## 4.5 Age and Retirement

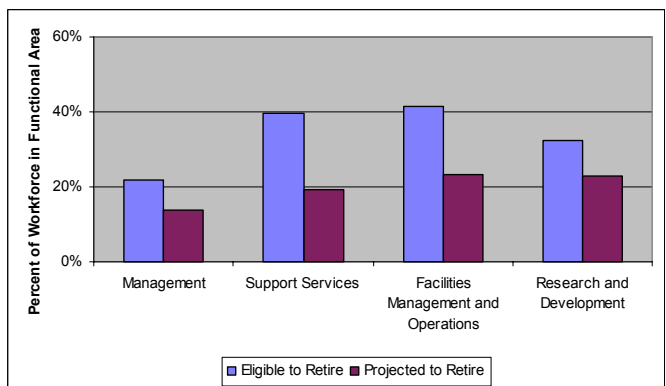
Like the rest of the Federal Government, NE is planning for workforce changes engendered by an aging workforce. The average age of the NE workforce is 49.5 years, just slightly higher than the 47.5-year average age of the Federal workforce overall.

Out of a current workforce of 359, 131 (36 percent) are eligible to retire during the 5-year planning period; 15 percent of the organization are currently eligible to retire, with an additional 3 to 4 percent eligible each year in the first 4 years, and 6 percent eligible to retire in FY 2008 as indicated in Figure 4–10. Being eligible to retire is not the same as desiring to retire. Over the past 3 years, the Headquarters and Idaho organizations averaged about 10 voluntary retirements per year, an average of 3 percent of the workforce each year. Projecting this same percentage retirement over the next 5 years, with the increasing number of employees eligible each year, it is possible that there will be around 50 voluntary retirements during the 5-year planning horizon. However, NE anticipates that voluntary retirements will increase. In fact, based on managers' projections, voluntary retirements will average a little more than 4 percent of the workforce each year, for a total projected retirement of 21 percent of the workforce during this period.



**Figure 4–10. Retirement Across Fiscal Years**

The impact of retirement will be fairly evenly spread between the functional areas, with 23 percent of the research and development and the facilities workforce and 19 percent of the support services staff projected to retire versus 14 percent in management as shown in Figure 4–11.

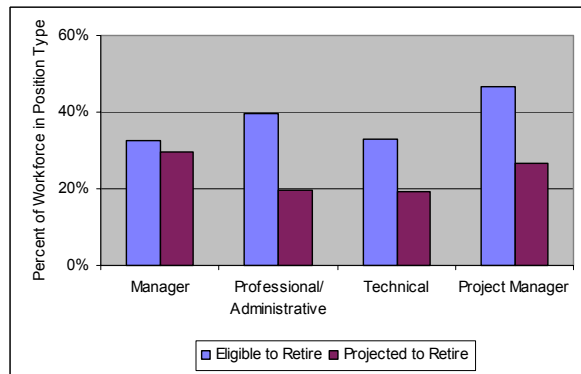


**Figure 4–11. Retirement Across Functional Areas**

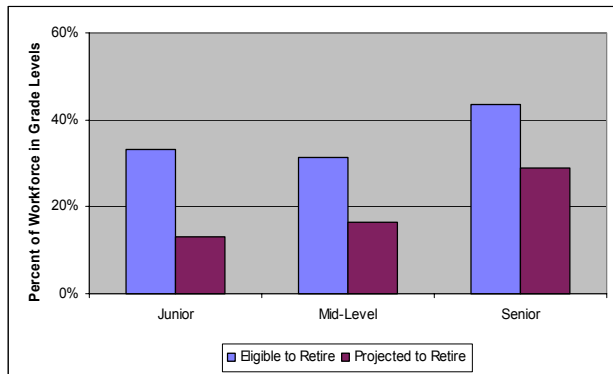


The impact of projected retirements is more pronounced for the manager and project manager position types, with 30 and 27 percent of these employees projected to retire versus the 19 and 20 percent, respectively, projected in the technical and professional/administration positions as shown in Figure 4–12.

The largest impact of retirement eligibility is in the higher grade levels, including senior executives, as shown in Figure 4–13. This underlines the fact that it is more likely that a mid-level or senior employee would retire than would employees in lower grade levels.



**Figure 4–12. Retirement Across Position Types**



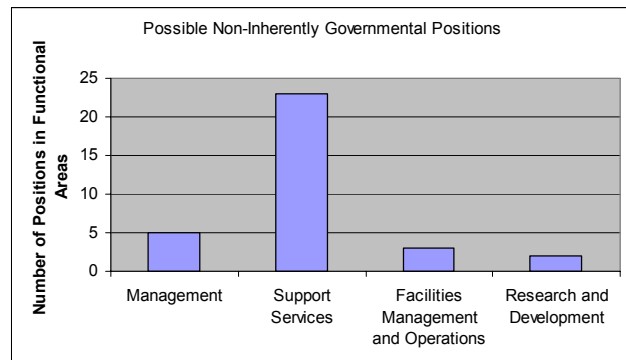
**Figure 4–13. Retirement Across Grade Levels**

## 4.6 Reducing Underrepresentation

NE has long had a commitment to reduce underrepresentation of women and minorities in its workforce. At the conclusion of FY 2003, 54 percent of the Headquarters workforce and 41 percent of Idaho’s workforce are from underrepresented groups; overall, 45 percent of NE’s employees are women and/or minorities including Black, Hispanic, Asian, and Native American employees. NE continues to recruit from a well-qualified pool of candidates that includes underrepresented groups.

## 4.7 Competitive Sourcing Positions

NE annually completes the Fair Act Inventory to support DOE’s study of possible non-inherently governmental positions. Currently, NE has 33 positions under review, constituting about 8 percent of the workforce, as shown in Figure 4–14. All these positions are in the support services functional area and include clerical and information technology positions.



**Figure 4–14. Number of NE Positions Under Competitive Sourcing Review**

## 5.0 SKILLS ANALYSIS

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The skills analysis provides information about current and future essential skills needs for accomplishing the NE mission. The skills analysis was conducted through a series of interviews with key managers who comprise the Human Capital Review Team. Two main questions were asked of the managers:

- What skills are needed presently to accomplish mission activities?
- How will the change in mission-driven activities over the next five years change the skills needs for the organization?

The analysis included an assessment of the essential skills needed to propel the mission activities over the five-year planning horizon given the situational uncertainties that include the outcome of the organization's integration efforts, the nature of the new management contract at Idaho, and the annual funding cycle.

### 5.1 Current Skills Analysis

The analysis of current skills relies on both the workforce analysis results, summarized in Section 4.0, and the response of NE managers to the first question presented in Section 5.0. Findings from the analysis are grouped into the position types (*i.e.*, manager, professional/administrative, technical, and project manager) that are used in the workforce statistical analysis. The discussions that follow provide analysis of the current organization skills in use by NE's functional areas (*i.e.*, management, support services, facilities management and operations, and research and development).

**Manager.** NE's manager skills include:

- Leadership.
- Policy.
- Strategic and Operational Planning.
- Internal and External Communication.
- Performance Assessment.
- Decision Making.
- Management/Supervision.

During the third quarter fiscal year 2004, NE will conduct recruitment efforts to fill two mission-critical senior executive positions, the Principal Deputy Director and the Deputy Director for Technology. Extensive efforts are planned to ensure that the broadest pool of candidates are sought and considered to assist NE in reducing the underrepresentation of women and minorities in senior executive positions.

**Professional/Administrative.** Professional/administrative skills include:

- Budget.
- Accounting/Finance.

- Human Resources.
- Industrial Relations.
- Training.
- Information Technology.
- Economics.
- Marketing.
- Legal.
- Public Affairs.
- Foreign Affairs.
- Security.
- Contracts.
- Contractor Management.
- Grants Management.
- Procurement.
- Communications.
- Secretarial.
- Clerical.

The functional area that uses these skills most heavily is support services. The current skills are satisfactory for mission activities.

**Technical.** Technical skills include:

- Nuclear Engineering.
- Nuclear Materials.
- Nuclear Operations and Maintenance.
- Nuclear Research and Development.
- Nuclear Physics.
- Nuclear Safety.
- Metallurgy.
- Chemical.
- Fire Protection.
- Physical Science.
- Health Physics.
- Industrial Hygiene.
- Environmental.
- Quality Assurance.
- Safeguards.

The NE employees who possess technical skills historically perform a critical contract management role by overseeing the quality, timeliness, and cost effectiveness of contractor-provided goods and services.

There is a current need for specialized technical engineering and scientific skills to support nuclear technology research and development activities.

**Project Manager.** Project management skills are those as determined in Department of Energy Manual 413.3, *Program and Project Management for the Acquisition of Capital Assets*, and as provided in the DOE project management training and certification program.

NE's program and project managers are not certified. NE has implemented a program for achieving certification for its staff.

## 5.2 Future Skills Analysis

NE's business vision is to achieve results through a partnership with the private sector, academia, and other nations. Within the next two to four years, NE will further its vision by implementing technology research, development, and demonstration activities that support a cost competitive nuclear energy infrastructure with minimized waste generation and proliferation-resistant nuclear fuel, and implementation of advanced space applications. In addition, NE will select a management and operations contractor with the experience and skills necessary to partner with NE to provide leadership and a long-range plan for establishing the laboratories as the premier nuclear technology research and development center of the Nation. This business vision drives NE's need to ensure certified program and project managers and highly specialized engineering and scientific skills are in place in the organization to oversee technology development and demonstration projects.

NE looks to provide a stronger contractor oversight role for all its programs and projects at the Idaho laboratories and at other research facilities and laboratories. At Idaho, NE's Lead Program Secretarial Officer role as having ultimate accountability for safety and environmental compliance at the site will not change with the new contractor, however, the burden of demonstrating safety and environmental compliance will fall more to the contractor rather than to the LPSO. This shift in emphasis will be supported by NE's commitment to ensuring that its program and project managers are fully certified as soon as possible.

Another influence on mission-driven activities is the integration team proposals for streamlining functional interfaces and the restructuring of the Idaho Operations Office. These initiatives are still underway so the impact on activities is not yet analyzed or integrated in this workforce plan. Milestones have been established to track the completion of these efforts (Section 7.0).

The impact on NE skills in the functional areas from anticipated changes in the mission-driven activities is discussed below, distinguished by position type.

**Manager.** At present there are no anticipated changes needed in manager skills due to changes in the mission-driven activities over the next five years. However two mission-critical senior management positions—the Principal Deputy Director and the Deputy Director for Technology—need to be filled.

**Professional/Administrative.** In general, managers believe that the current professional/administrative skills are adequate to support the mission over the five-year planning period. There is uncertainty about the impact of the new Idaho laboratory contract and contractor on skills needs in the future organization, but there is no indication that the

professional/administrative skills needed to manage the new contract would be different than those in the organization at present.

**Technical.** A gap exists in highly specialized skills needed to support nuclear energy technology research, development, and demonstration including metallurgical, chemical and materials engineering, and scientific skills.

**Project Manager.** Project and program manager and information technology (IT) project manager positions are identified. These skills are needed for effective and efficient oversight of programs and projects that support nuclear technology research, development, and demonstration.

### **5.3 Skills Gap Analysis**

Many of the skills needed to accomplish NE's mission over the five-year planning horizon are currently resident in the NE organization. A gap exists in highly specialized skills needed to support nuclear technology research, development, and demonstration including metallurgical, chemical and materials engineering, and scientific skills. Another need identified is the certification of NE's program and project managers as well as IT project managers.

## 6.0 *WORKFORCE PLAN*

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This section presents The Office of Nuclear Energy, Science and Technology's (NE) plan for assuring that its workforce is staffed and structured to meet its business vision in an effective and efficient manner. It presents programs to obtain and retain leadership and mission critical skills and to ensure that recruitment and retention activities are invested in underrepresented groups (*i.e.*, women, minorities, and persons with disabilities) to make available the deepest pool of skills for the organization.

From fiscal year (FY) 2001 through the present, NE has achieved demonstrable results in addressing the requirements identified in its previous workforce plans<sup>3</sup> by:

- Reducing skills gaps in mission-critical occupations.
- Implementing its succession plan for leadership positions.
- Decreasing underrepresentation of women and minorities in leadership positions and mission-critical occupations.

### 6.1 Skills Gaps in Mission Critical Occupations

Many of the skills needed to accomplish NE's mission over the five-year planning horizon are currently resident in the NE organization. However, skills gaps exist in mission-critical occupations that require highly specialized skills to support nuclear energy technology research, development, and demonstration. These include metallurgical, chemical and materials engineering, and scientific skills. In addition, NE's program and project managers and information technology project managers, all of which are mission-critical occupations, need to obtain certification.

#### 6.1.1 Highly Specialized Skills Gaps

NE uses several management tools for reducing identified skills gaps in specialized technical occupations including recruitment for new hires, redeployment of existing skills sets, and matrix management. The key to NE's approach is the recruitment of qualified staff that embodies the breadth of skills needed to shift gears and respond to immediate-need strategic and management issues.

**Recruitment.** NE recruits needed skills into the organization to fill identified gaps and replace skills lost due to retirement and other attrition. In FY 2001, NE established a recruitment goal for following years because of the scarcity of technically skilled and qualified candidates available and willing to consider a career with the Government. NE is a highly technical organization and requires engineers and scientists in specialized disciplines to achieve its business vision, mission, and objectives.

Due to extensive downsizing in the 1990s, NE lost many of its specialized technical staff, thus creating skills gaps. For FY 2001, NE emphasized the recruitment of technically skilled

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<sup>3</sup> NE's Workforce Analysis, June 2001; NE's Human Capital and Succession Plan, January 2002; NE's Human Capital and Management Plan, August 2002; NE's Workforce Plan, December 2003.

personnel and set a goal to recruit six to eight personnel—four to increase the level of skills in the organization and two to four to address anticipated retirements and other attrition. In FY 2001, NE was successful in recruiting six personnel into mission critical occupations.

NE's Workforce Analysis (June 2001) articulated the need to recruit additional technical staff to reduce skills gaps created by the downsizing. NE set a goal to increase the size of the organization by 12 people in FY 2002 and to emphasize the recruitment of technically skilled personnel for mission-critical positions. In its Human Capital Management Plan (January 2002), NE established a goal of increasing the organization by 27 staff members over the ensuing 5 years (FY 2002–2006), of which 19 would be technically skilled personnel (averaging 4 per year). As a result, NE set the same goal for FY 2002 as for FY 2001, to recruit six to eight personnel—four to increase the level of skills in the organization and two to four to address anticipated retirements and other attrition. During FY 2002, NE successfully recruited eight technically skilled personnel to partially reduce the skills gap.

NE's Human Capital and Succession Plan (August 2002) established goals to continue to reduce the skills gap in the organization. NE reassessed its skills needs resulting in a reduction in its commitment to add technical skills. NE committed to adding 13 technical specialists and project manager personnel over 5 years (FY 2003–2007, averaging 2 to 3 per year). As a result, NE's goal for FY 2003 was again to recruit six to eight personnel—two to three to increase the level of skills in the organization and four to five to address anticipated retirements and other attrition. NE was successful in recruiting four technically skilled personnel in FY 2003. The less-than-goal recruitment is attributable to NE's assumption of the Lead Program Secretarial Officer (LPSO) role for Idaho and a reassessment of what skills would be actually be needed in the future.

NE's Workforce Plan (December 2003) updated NE's commitment to reducing the skills gap. Due to NE's assignment as LPSO for Idaho, NE reduced its recruitment commitment to five to eight personnel with specialized technical skills over the subsequent five years (an average of one to two per year) to support advanced technology research, development, and demonstration activities. Never the less, NE forecasts an increasing recruitment need over this planning period to address anticipated retirements and other attrition. Thus the recruitment goal for the near term (FY 2004–2006) remains at six to eight personnel per year and increases for FY 2007–2008 to eight to ten personnel per year. NE has been successful in recruiting three technically skilled personnel in FY 2004.

NE anticipates that the recruitment of specialized skills to the organization will continue to be a challenge because of the demand on, and the scarcity of, qualified candidates. NE's recruitment of technical skills advances on several fronts, from participation in industry conferences to placing recruitment advertising in industry periodicals and advertising in major daily newspapers. All means of recruitment will be used to attract and retain technical personnel with essential skills including recruitment and relocation bonuses, retention allowances, and Excepted Service authority. NE is an active corporate member of the American Nuclear Society and has longstanding relationships with the key nuclear and energy professional organizations. In addition, NE has extensive contacts in industry through the Nuclear Energy Research Advisory Committee, a formal Federal advisory committee that provides expert advice to NE.

NE has established an ongoing presence in colleges and universities to encourage students to matriculate in technical disciplines needed by the nuclear industry generally and NE specifically. NE supports and funds research grants and a number of university programs. For instance, NE supports the Majority/Minority Partnership Program, which is designed to attract Black and Hispanic college students to the field of nuclear engineering. The program partners a majority institution that has a nuclear engineering program with a minority institution to enable students at the minority institution to complete their degree in a scientific field and pursue a second or advanced degree in nuclear engineering. In addition, NE partners with the NE Diversity Council through the independent notification of recruitment actions to approximately 30 diverse organizations.

**Redeployment.** NE redeployes skills from within the organization from lower priority programs to higher priority programs when priorities shift or recruitment proves difficult. The position vacated is filled with new or transferred staff.

**Matrix Management.** NE uses matrix management to detail employees to high-priority, high-visibility mission-critical but short-term assignments. The vacated position is not filled, and the duties are shifted to others in the organization or deferred until the employee returns to their assigned program. The benefit to the employees and the organization is the personal career development that employees receive from being exposed to a variety of assignments and challenges while meeting the mission-critical needs of the organization. Matrix management exercises a built-in organizational flexibility that challenges employees to accommodate more or different work and balances needs with available skills to meet the highest priority program goals.

Table 6–1 summarizes NE’s results in recruitment, redeployment, and matrix management.

**Table 6–1. Reducing Skills Gaps in Mission-Critical Occupations (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Recruitment	(number of personnel)							
Planned	6-8	6-8	6-8	6-8	8-10	8-10	10-12	10-12
Actual	6	8	7	3				
Redeployment	10	3	6	21				
Matrix Management	19	11	18	10				

<sup>a</sup> Headquarters data only.

### 6.1.2 Skills Certification

In FY 2003, NE acknowledged the importance of certifying its program and project management staff and engaged in the process of ensuring full certification of all identified staff within five years of an approved, project management training program being implemented. As shown in Table 6–2, NE plans to obtain DOE Office of Engineering and Construction Management certification of 100 percent of the current Federal Project Directors within 24 months of the date the Project Management Career Development Program Certification Review Board initiates candidate certification approvals. NE will obtain 100 percent of the remaining critical program and project management certifications within five years and will require all new hire staff to be certified within three years of their hire date. In addition, NE is pursuing the certification of its contract specialists and IT professionals.



**Table 6–2. Skills Certification Milestones (FY 2001–2008)**

<b>Milestone</b>	<b>Planned Completion</b>	<b>Status</b>
OECM initiates candidate certification approvals.	FY 2005	Level 1 certification program available
All NE project directors certified.	FY 2006	NE has two incumbent project directors and one project to which a project director will be assigned in FY 2005. The project directors will be certified within two years.
Certification of program and project managers initiated.	FY 2005	One NE engineer has achieved Level 1 Project Management certification. NE has requested from OECM two Level 1 training sessions to be held in FY 2005 for NE project managers at Headquarters. NE project managers at Idaho have target certification Level 1 and one each have target certification Levels of 2, 3 and 4.
Certification of contract specialists to Level 3.	FY 2005	NE has 14 contract specialists; 3 require Level 2 and have completed it; 11 require Level 3 and 10 have completed it; the remaining contract specialist should complete Level 3 in FY 2005.
Certification of IT professionals to Level 3.	FY 2005	NE has one IT professional on staff who will complete Level 2 IT certification in FY 2005. Level 2 is all that is required now.

## 6.2 Succession Planning

NE's succession plan integrates the following three important elements that are critical to developing and maintaining a leadership talent pool:

- Recruit and redeploy qualified personnel from inside and outside NE to fill leadership positions identified in NE's succession plan.
- Provide a larger pool of candidates available for development within NE by hiring a significant proportion of junior personnel (entry and mid-level) to shift the average age and grade level of its professional, scientific, and administrative staff over time. A younger and less-senior workforce over the next five years provides NE a better opportunity to supply the leadership talent pool.
- Continue participation in DOE Leadership Programs and other development and training programs and formalizing the connection between those skills identified as essential to leadership positions and Individual Development Plans (IDP).

### 6.2.1 Filling Leadership Positions

In FY 2001, recognizing the risk of a workforce where 45 percent of the staff would be eligible to retire within five years, NE committed to developing a succession planning program to address the replenishment of the leadership talent pool (Workforce Analysis, June 2001). The commitment was revised in FY 2002 to specifically require that a plan would be completed in FY 2002 and implemented in FY 2003–2005 (Human Capital Management Plan, January 2002). The plan was published in late FY 2002 and has been implemented in FY 2003 and 2004 (Human Capital and Succession Plan, August 2002).

In FY 2003, NE filled six leadership positions. Four positions were filled with women, thus decreasing the underrepresentation of women at the manager level. In FY 2004 to date, NE has filled five leadership positions. One of these positions was filled by a woman, further reducing underrepresentation of women in leadership positions.

Recognizing the limitations of the FY 2002 succession plan,<sup>4</sup> NE is revising its planning approach. The revised plan will include a formal skills-based succession plan to ensure the creation and maintenance of a leadership talent pool (see Section 6.2.3). The skills-based development program will be implemented in FY 2005. Changes in the leadership skills needed by NE's leadership talent pool may occur as a result of changes in funding, internal and external direction, or political environment. As skills are added or changed, NE will update its skilled-based development program. An evaluation of the effectiveness of the succession plan will be made about a year after the skills-based development program has been implemented.

Succession planning milestones are summarized in Table 6–3. Performance measures are discussed in Sections 6.2.2 and 6.2.3.

## **6.2.2 Shifting Demographics to Build the Leadership Talent Pool**

A shift in demographics of NE's professional, scientific, and administrative staff toward a younger, less senior workforce will enhance NE's ability to train and develop a leadership talent pool with longevity to match the long-term nature of NE's research programs and provide the flexibility in skills to achieve NE's mission in the years beyond this five-year plan. Thus, NE's goal is for 50 percent of its new hires each FY to be entry- and/or mid-level personnel.

In FY 2001, NE began its shift toward a younger workforce by hiring more junior (entry- and mid-level) personnel to build the leadership talent pool in the face of anticipated retirement and other attrition in leadership positions. Of the 11 new hires, 4 were entry-level and 3 were mid-level (64 percent).

In its Human Capital Management Plan (January 2002), NE reiterated its commitment to shift demographics to reduce the proportion of senior engineering and scientific staff from 87 to 68 percent over five years. Broadening the scope of this commitment to include all professional, scientific, and administrative staff, NE hired 12 staff members; of these, 4 were entry-level and 1 was mid-level (42 percent).

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<sup>4</sup> The Human Capital and Succession Plan (August 2002) was a traditional plan that focused on leadership positions that were vacant or were anticipated to be vacated through retirement or other attrition and identified skills available in the workforce and the workforce's relative readiness to fill those positions, and those absent in the workforce. This approach needs to be modified because staffing regulations within the Federal Government prohibit succession planning that may identify open positions and potential candidates to fill those positions. NE did not preselect candidates for positions during this period under this plan.

**Table 6–3. Succession Planning Milestones and Accomplishments (FY 2001–2008)**

<b>FY</b>	<b>Milestone</b>	<b>Accomplishment</b>
2001 <sup>a</sup>	Commitment to succession planning.	Established a deadline of FY 2002 to complete succession plan.
2002 <sup>a</sup>	Complete succession plan.	Published <i>Human Capital and Succession Plan</i> (August 2002).
2003 <sup>a</sup>	Implement the FY 2002 succession plan.	Filled six leadership positions: <ul style="list-style-type: none"> <li>• Five recruitments—two from industry, two from National Nuclear Security Administration, one from Department of Defense.</li> <li>• One redeployment from within NE.</li> </ul>
2004	Implement the FY 2002 succession plan.  Revise FY 2002 succession plan to incorporate Idaho and include a skills-based plan to develop and maintain leadership talent pool.	Filled five leadership positions: <ul style="list-style-type: none"> <li>• Three recruitments—one from industry, two from within NE.</li> <li>• Two promotions from within NE</li> </ul> Milestones established (see Section 6.2.3).
2005	Implement skills-based development plan.  Establish performance goal for the number of leadership skills-based training courses to be completed annually.	
2006	Evaluate effectiveness of succession plan.	

<sup>a</sup> Headquarters data only.

NE's Human Capital and Succession Plan (August 2002) reconfirmed the need to shift demographics during the ensuing five years (FY 2003–2007). NE continued the shift in FY 2003 by hiring eight new staff members of whom one was entry-level and two were mid-level (38 percent). Finally, NE's Workforce Plan (December 2003) reiterated the goal to reduce the age and seniority of NE's staff. In FY 2004, NE has hired fourteen new staff members of whom three were entry-level and four were mid-level (50 percent). Table 6–4 summarizes NE's goals and results for hiring entry- and mid-level personnel into professional, scientific, and administrative areas to increase the number of personnel available to develop leadership abilities in each business area and at each level of the organization.

### **6.2.3 Individual Development of Leadership Skills**

NE does succession planning for its leadership positions. Skills required for these positions are identified (see Section 5.0), and supervisors and managers assist staff to develop skills through training and experience to build the leadership talent pool. Supervisors and managers encourage employees to develop skills through informal mentor relationships, volunteering for developmental assignments, and taking advantage of training opportunities.

**Table 6–4. Demographics of New Hires in Professional, Scientific, and Administrative Areas (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003 <sup>b</sup>	2004	2005	2006	2007	2008
Percent (%) of new hires that are entry- or mid-level personnel								
Planned	30	30	30	50	50	50	50	50
Actual	64	42	31	50				
Personnel hired								
Total	11	12	13	14				
Entry-Level	4	4	3	3				
Mid-Level	3	1	1	4				

<sup>a</sup> Headquarters data only.<sup>b</sup> Does not include transfer of positions in support of LPSO activities for Idaho.

Through individual development, NE plans to continually develop and maintain a leadership talent pool for its leadership positions. Table 6–5 presents NE’s goals and accomplishments for engaging its staff in development programs.

**Table 6–5. Individual Development – Goals and Accomplishments (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Personnel in formal leadership programs <sup>b</sup>								
Planned	0	2	2	6	6	6	6	6
Actual	0	1	3	8				
Personnel in other career development programs								
Planned	2	4	12	12	12	12	12	12
Actual	2	5	18	18				
Personnel in NE’s cooperative program <sup>c</sup>								
Planned	0	0	1	2	3	3	3	3
Actual	0	0	3	4				

<sup>a</sup> Headquarters data only.<sup>b</sup> NE senior management selects employees to participate in formal leadership programs.<sup>c</sup> Due to the highly specialized training associated with nuclear applications, NE independently recruits entry-level engineers, and therefore has not participated in the DOE intern program. To that end, NE has developed a co-op program in late FY 2002 with a number of colleges and universities that offer nuclear engineering degrees. The program provides opportunities for promising students to work in the nuclear field during their junior and senior years, and during graduate studies.

To assist its managers, NE has initiated efforts to establish a skills-based program for development planning. This program will formally align needed skills for leadership positions with available training and development programs. The following elements will be established:

- Employee self-assessment of skills with supervisor input.
- Use of the IDPs to establish a plan to build and maintain individual skills and experience desired in the leadership talent pool. These plans will be tracked and performance measures established for their completion.
- Guidance for managers, supervisors, and employees on the skill-based program.
- A communications plan to introduce the program.

- A commitment to providing 40 hours of supervisory training to new supervisors within one year of deployment in the supervisory position.

The program will allow employees, along with their supervisors and managers, to assess individual skills in order to develop IDPs that include appropriate training and development programs including use of NE's matrix management approach. NE uses matrix management to deploy employees from their assigned program duties to high-priority, high-visibility mission-critical but short-term assignments for a period of weeks or months. The benefit to the employees and the organization is the personal career development that employees receive from being exposed to a variety of assignments and challenges while meeting the mission-critical needs of the organization. Table 6–6 provides milestones for implementing the skills-based development program.

**Table 6–6. Skills-Based Development Program Implementation Milestones**

<b>Milestone</b>	<b>Planned Date</b>	<b>Status</b>
Modify the IDP process to link with available training and development programs.	July 2004	Completed by DOE-ME via CHRIS IDP module.
Develop and deploy communication plan.	August 2004	Combined with next milestone
Complete and distribute guidance on implementation of self-skills assessment and IDP process.	August 2004	Combined with next milestone.
Develop and deploy NE employee self-skills assessment instrument.	October 2004	DOE-ME developed CHRIS module. NE will initiate its use in October.
Complete IDPs for FY 2005.	November 2004	On target

### 6.3 Reducing Underrepresentation of Women and Minorities in the Workforce

In 2002, NE showed underrepresentation in its female, black, and Hispanic populations in compared to its benchmark the Federal Civilian Workforce Statistics.<sup>5</sup> NE has shown an increase in both female and minority representation against the total population benchmark since FY2002. Similarly, NE showed an underrepresentation of women in the SES population against its benchmark.<sup>6</sup> In FY 2004, NE SES female population is nearly 80 percent of the benchmark. NE's benchmarks are shown in Tables 6–7a and –7b.

<sup>5</sup> Federal Civilian Workforce Statistics, *Demographic Profile Of The Federal Workforce As Of September 2002*, United States Office of Personnel Management

<sup>6</sup> Federal Civilian Workforce Statistics, *The Fact Book 2003 Edition*, United States Office of Personnel Management

**Table 6-7a. NE's Diversity Benchmark (Total Population)**

	<b>Benchmark</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Percent (%) of Total NE Population				
Women	49.1	35.8	37.3	36.9
Minorities	30.2	13.5	14.3	15.3
Black	16.7	4.2	4.9	4.9
Hispanic	6.8	2.9	3.0	3.6
Asian/Pacific Islander	4.7	4.4	4.5	4.9
American Indian/ Alaska Native	2.1	2.0	1.9	1.9

**Table 6-7b. NE's Diversity Benchmark (SES Population)**

	<b>Benchmark</b>	<b>2001<sup>a</sup></b>	<b>2002<sup>a</sup></b>	<b>2003</b>	<b>2004</b>
Percent (%) of SES Population					
Women	25.5	11	13	25	20
Minorities	14.0	22	13	13	13

<sup>a</sup> Headquarters data only.

NE is committed to recruiting and retaining a well-qualified workforce that is representative of the population.

NE pursues a wide variety of recruiting and outreach initiatives to underrepresented groups from both Headquarters and the Idaho Operations Office. NE also maintains a diversity council that meets monthly and sponsors activities to recruit and retain members to reduce its underrepresentation. Table 6-8 provides a summary of NE's outreach activities for FY 2001-2008.

**Table 6–8. Outreach Activities - Actual and Planned (FY 2001–2008)**

Activity	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Hispanic Youth Symposium for high-potential Latino youths from Idaho to attend lectures, engage in classroom sessions, apply problem-solving tools to tackle social issues, make speeches and presentations, join in sports and art events, and compete for scholarships.	●	●	●	●	○	○	○	○
Participation in minority hiring fairs and recruitment.			●		○		○	
Assistance to Morgan State University's Summer Bridge Program.	●	●	●	●	○	○	○	○
Sponsorship of undergraduate students from Howard University to work at Headquarters and in the field.	●	●	●	●				
Participation in DOE's Student Diversity Partnership Program.	●	●	●	●	○	○	○	○
Support of DOE's Special Emphasis programs, <i>i.e.</i> , Hispanic Heritage Month, Asian Heritage Month, <i>etc.</i>	●	●	●	●	○	○	○	○
Support engineering and science programs with educational institutions.	●	●	●	●	○	○	○	○
Support of the University Partnership program. Five partnerships are in place involving eleven universities.	●	●	●	●	○	○	○	○
Participate in training and developmental conferences such as the Federally Employed Women's conference and Blacks in Government conference.			●	●				
Adopt-A-School partnership with Clopper Mill Elementary School.	●	●	●	●	○	○		
Advertising in professional publications such as <i>American Indian Science &amp; Engineering</i> and <i>Women in Physics</i> .		●	●	●	○	○	○	○
Posting vacancy announcements on the web via professional sites and the NE Home Page.		●	●	●	○	○	○	○
Recruitment through NE's Diversity Council to approximately 30 organizations for groups underrepresented within NE's staff.		●	●	●	○	○	○	○

<sup>a</sup> Headquarters data only.

Key: ● = actual; ○ = planned.

NE's actions to ensure connection with pools of potential Hispanic applicants to further the Department of Energy (DOE) Hispanic Employment Plan<sup>7</sup> include funding the university partnership program for the University of New Mexico and New Mexico State University, which are primarily Hispanic serving institutions. One of NE's six special emphasis programs is the Hispanic employment program that sponsors the Hispanic Youth Symposium and the Hispanic Heritage month celebration. These and other planned activities are designed to encourage young people to engage a career in engineering and to recognize the employment opportunities with NE. In time, NE hopes that this will result in a measurable reduction in the underrepresentation of NE's Hispanic employment.

NE is committed to increasing the pool of available talent for recruitment by supporting education. To meet this commitment, NE supports the Majority/Minority Partnership Program, which is designed to attract Black and Hispanic college students to the field of nuclear engineering. The program partners a majority institution that has a nuclear engineering program with a minority institution to enable students at the minority institution to complete their degree in a scientific field and pursue a second or advanced degree in nuclear engineering.

<sup>7</sup> Hispanic Employment Plan, "Memorandum for Heads of Departmental Element," from Kyle E. McSlarrow, January 14, 2004.

As shown in Table 6–9, 59 percent of NE’s new hires or transfers in FY 2003 were from underrepresented groups; 93 percent in FY2004. NE plans to attract at least 60 percent of its expected new hires or transfers from underrepresented groups to reduce underrepresentation in its staff.

**Table 6–9. Hiring/Transfers from Underrepresented Groups (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of hires/transfers in underrepresented groups <sup>b</sup>								
Planned	50	50	50	60	60	60	70	70
Actual	64	69	59	93				
Minorities	45	38	30	14				
Women	64	54	40	79				

<sup>a</sup> Headquarters data only.

<sup>b</sup> Underrepresented groups include all women, Blacks, Hispanics, Asians, and Native Americans.

NE continues its efforts to identify, recruit, and develop qualified women and minorities in order to decrease underrepresentation its leadership pool as shown in Table 6–10.

**Table 6–10. Mission-Critical Occupations and Leadership Positions – Women and Minorities (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of mission-critical occupations and leadership positions filled by women and minorities								
Planned	15	15	20	25	30	35	40	50
Actual	33	31	27	27				
Percent (%) of total personnel in formal leadership development programs that are women and minorities								
Planned	0	25	25	30	30	40	40	40
Actual	0	100	67	25				
Minorities	0	100	67	13				
Women	0	100	0	13				
Percent (%) of total personnel in other career development programs that are women and minorities								
Planned	30	30	40	40	40	40	50	50
Actual	100	33	72	72				
Minorities	100	17	33	28				
Women	100	33	72	72				

<sup>a</sup> Headquarters data only.



## 7.0 KNOWLEDGE MANAGEMENT

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The Office of Nuclear Energy, Science and Technology's (NE) current knowledge management program is ensuring that institutional knowledge is readily available and retrievable by the workforce. General information on NE's mission, goals, program plans, roadmaps, studies, reports, and press releases, as well as other valuable information, is kept current and available on the NE Website. The Director ensures that key information is relayed during quarterly all-hands meetings. Operating plans and procedures to guide routine and non-routine decisions and activities are maintained; and reports are generated, circulated, and maintained in files for future reference.

Recently, NE initiated a project to create a portal accessible to all NE offices and employees. By having a single site for nuclear energy program information, the portal will eliminate redundancies, streamline the information sharing process, and coordinate program management within NE. The project is in its early stages, and an implementation date has not been established. Arrangements were made through the Department of Energy (DOE) Office of Chief Information Officer to utilize existing portal infrastructure to conduct a pilot portal project. Presently, information modules and collaboration modules are being established, and cyber security challenges such as accessing information through firewalls are being addressed. The pilot portal project is currently under development and should be completed by March 2005. Lessons learned from the pilot will then be addressed to permit full-scale portal deployment within NE. Table 7-1 provides planned dates for completing and deploying the NE portal.

**Table 7-1. NE Portal Project Milestones**

<b>Milestone</b>	<b>Planned Date</b>	<b>Actual Date</b>
Complete portal pilot project.	March 2005	
Incorporate lessons learned in full-scale portal planning.	September 2005	

In support of its corporate goals, DOE has established the Knowledge Management Working Group (KMWG) to develop a knowledge management strategic plan, design and implement knowledge management training, and establish "communities of practice" to leverage new approaches to managing knowledge within DOE. NE fully supports this goal and has representation on the KMWG.

## 8.0 RESTRUCTURING IMPROVEMENTS

The Office of Nuclear Energy, Science and Technology's (NE) vision is to integrate the Headquarters and Idaho organization to manage field operations without the organizational and administrative separation associated with the traditional Headquarters-field relationship. NE's goal is to streamline the reporting relationship between the Idaho laboratory contractor and the Director by realigning the Headquarters-field contractor oversight relationship and leveraging the merged organization's skills by shifting some program management roles to staff located in Idaho and shifting some research and development roles to Headquarters.

### 8.1 Restructure Idaho Workforce

NE has initiated an organizational restructuring analysis to evaluate NE-ID's missions and workforce in light of the merger of INEEL and ANL-W under the new management contract, the shift of the site mission, and the ongoing support of the resident program support offices. Table 8–1 presents the plan for completing the restructuring plan for the Idaho organization.

**Table 8–1. Restructuring Plan Milestones**

<b>Milestone</b>	<b>Planned Date</b>	<b>Status</b>
Complete restructuring analysis.	FY 2004	Analysis in process
Complete plan for implementing recommendations.	FY 2005	

### 8.3 Performance Measures on Restructuring Improvements

NE's goal is to maintain a streamlined organization that improves span of control, simplifies decision-making processes, and establishes an organization and position structure to align with mission and goals.

Prior to fiscal year (FY) 2001, NE had streamlined its organization reducing a multilayered organization to a single layer and reducing the span of control from 3:1 to 7.5:1. In FY 2001, NE combined the budget and administrative functions into one office, reducing the span of control for business management processes. NE committed to further improving its employee to supervisor ratio. To assist in reducing time to make decisions, NE developed a Functional Directory, a tool that employees use to identify primary and backup personnel responsible for NE functions and decisions.

In June 2002, NE's structure went from a flat-line organization with eight Associate Director-level elements to a more streamlined organization. NE created a three Deputy Director structure at Headquarters resulting in improved span of control and an improved decision-making process. This reorganization met a management goal from FY 2002 to align programs, priorities, and organization with the missions and priorities of the Department of Energy (DOE). The June 2002 reorganization achieved this goal.

When NE assumed Lead Program Secretarial Officer responsibilities for Idaho in FY 2003, the size and structure of NE's organization changed. Since both organizations had aligned to

mission and goals prior to integrating, the management layers and span of control were similar. The number of manager positions increased several fold due to the addition of the Idaho organization. NE intends to reduce the number of positions through its restructuring activities.

Restructuring performance measures are summarized in Table 8–2.

**Table 8–2. Performance Measures on Restructuring Improvements (FY 2001–2008)**

	2001 <sup>a</sup>	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Number of Management Layers								
Planned	2	2	3	3	3	3	3	3
Actual	2	2	3	3				
Average Span of Control (Employee/Manager)								
Planned	7	10	10	10	10	10	10	10
Actual	7.5	9	10	9				
Number of Managerial Positions <sup>b</sup>								
Planned	13	12	47	47	37	37	37	37
Actual	13	12	47	47				
Savings Realized from Restructuring (\$ million) <sup>c</sup>								
Planned	0	0	0	0	2.6	2.6	0	0
Actual	0	0	0	0				

<sup>a</sup> Headquarters data only.

<sup>b</sup> The number of manager positions in FY 2003 is higher than FY 2002 due the addition of the Idaho manager positions.

<sup>c</sup> Savings in salary and benefits costs from buyouts

**Proof of Optimized Structure.** NE anticipates that the Idaho Operations Office reorganization assessment will provide rationale for why the structure is optimized for pursuit of the NE mission. The structure is not currently optimized.

**Reducing Management Layers.** Currently, NE has three management layers in its organization. NE plans to maintain this management layer structure through FY 2008.

**Improving Spans of Control.** DOE's recommended level supervisor-to-employee ratio is currently 1 to 10. NE's goal is to attain a supervisor-to-employee ratio of 1 to 10 and maintain it through FY 2008.

**Reducing Number of Managers.** NE anticipates that recommendations from the the Idaho restructuring analysis will result in a reduced number of manager positions. Therefore, a planned reduction of 10 manager positions by the end of FY 2005 is anticipated. This number will be maintained as a target through the end of FY 2008.

**Improved Decision Making.** NE plans to update the Functional Directory by second quarter FY 2005 to further improve decision making.

## 9.0 DOE MISSION LINKED TO PERFORMANCE PLANS

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One of the Department of Energy's (DOE) four strategic goals is to protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy. The Office of Nuclear Energy, Science and Technology's (NE) mission directly supports this goal by leading DOE's investment in advanced nuclear science and technology to expand the use of nuclear power as a reliable, affordable, and environmentally sound energy source. Further, NE's human capital management strategy is to recruit and retain skilled professionals to carry out NE's highly technical mission on behalf of the Nation.

To clearly communicate to the NE workforce the means for the successful achievement of DOE's mission, NE links all senior executive service and manager performance appraisals to the DOE mission. The performance measures link to the *National Energy Policy* through the DOE and NE strategic plans, program road maps and implementation plans, annual program guidance memos, and contractor plans/award fee measures, as appropriate for the individual. The individual performance measures are then cascaded through the remainder of the workforce. NE's achievement in providing a link between mission and individual performance goals is shown in Table 9-1.

**Table 9-1. Linking Appraisals to DOE Mission**

NE Staff	2002 <sup>a</sup>	2003	2004	2005	2006	2007	2008
Percent (%) of SES and manager appraisals linked to DOE mission							
Planned	NA	100	100	100	100	100	100
Actual	100	100	100				
Percent (%) of remaining workforce appraisals linked to DOE mission							
Planned	NA	NA	60	100	100	100	100
Actual	13	60	100				

<sup>a</sup> Headquarters data only.

**Key:** NA, not applicable.

## **10.0 LINKS TO NE *PROGRAM PLAN* AND NE FY 2006 BUDGET**

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The fiscal year (FY) 2006 Budget Request will identify program goals, objectives, and milestones, which mirror those addressed in the Office of Nuclear Energy, Science and Technology's (NE) Workforce Plan. The FY 2006 Budget Request will specify sufficient resources to implement NE's human capital strategy and Workforce Plan including resources for project management certification, individual development plans, outreach, and recruitment.

NE's Program Plan addresses the importance of NE's workforce and strategic plans for achieving NE's programs with the following statement:

“Achieving these programs requires a highly skilled, well-qualified workforce. NE's current workforce analysis identifies some skills gaps in leadership positions and mission-critical occupations, and these pose some risk to the successful completion of key programs. This risk is mitigated by NE's Workforce Plan, which includes management actions that can close skills gaps to guarantee the staffing of mission-critical areas and continued implementation of detailed succession plan.”

## 11.0 MAINTAINING THE *WORKFORCE PLAN*

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The Human Capital Review Team (HCRT) is responsible for monitoring the completion of the Workforce Plan objectives and ensuring that the Workforce Plan is updated annually. On a quarterly basis, NE Office of Resource Management will prepare a status report for the HCRT review, identifying mission or function changes that impact the workforce, highlighting issues that need to be addressed, and providing a progress report on the Workforce Plan performance measures. This will be used to report to the Office of Management, Budget and Evaluation. On an annual basis, NE Office of Resource Management will initiate a Workforce Plan update based on input from the HCRT.

Through the Department of Energy Human Capital Management and Succession Planning Initiative,<sup>8</sup> the Human Capital Management and Succession Planning Team is moving forward with the development of various tools and processes. NE will evaluate and adopt these tools and processes as they are released for use in workforce planning.

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<sup>8</sup> *Workforce & Succession Planning/Management*, DOE Office of Training and Human Resource Development Workforce Planning and Development Group, March 2003.

## **12.0 CONCLUSION**

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To achieve its human capital management strategy, the Office of Nuclear Energy, Science and Technology (NE) will continue to recruit, retain, and develop a well-qualified workforce with a strong commitment to reducing underrepresentation and a goal to shift to a younger, less senior demographic to ensure the strongest possible leadership talent pool. Using this Workforce Plan as a guide, NE will look for restructuring improvements within the Idaho Operations Office organization and through integration of the Headquarters and Idaho functions and continue to strengthen its human capital management processes such as succession planning and knowledge management. NE is committed to maintaining an up-to-date Workforce Plan to address future skills needs, acknowledging that changes in funding, internal and external direction, or political environment may impact current plans. NE's vision is to build, sustain, and effectively deploy the skilled, knowledgeable, and high-performing workforce needed to meet current and emerging goals.